

REMARKS***Personal Interview***

Applicant would like to thank Examiner Zhao, Examiner Wu, and Examiner Binh for the courtesy of meeting with Applicant's representative, David Jackson, and Calvin Fan on June 3, 2010. Applicant appreciates the opportunity to illustrate various embodiments of the invention by specific examples, and has amended the claims specifically to implement the Examiners' suggestions, as detailed in greater detail below.

Status of the Claims

Claims 25 and 29-57 are pending in the instant case.

Taking the Examiners' suggestion to use terminology more precisely, claim 25 has been amended to be consistent with the specification, and particularly with the descriptions of the particular embodiment presented in Figure 9, which was useful for reference during the interview.

The phrase "distribution scheme" has been used in place of merely "distribution" to emphasize that a query sequence can be divided up according to different schemes, and that steps a) to d) are performed separately for each of these schemes during the overall method of the invention (see page 5, lines 4-20).

Claim 25 has also been amended in accordance with the Examiners' suggestion to spell out the steps that were repeated (for each query distribution scheme) in original steps a) to d). Thus, amended claim 25 now recites steps 1a) to 1d) to be performed under the first query distribution scheme, then recites steps 2a) to 2d) to be performed under a second query distribution scheme, and if there are third, fourth, or more query distribution schemes, these are performed under optional step 3).

Similarly, previous step f) has been reworded so that it (now step 4) is performed in serial fashion "subsequently" after all potential matches are identified in steps 1a)-1d), steps 2a)-2d), and optionally step 3). As disclosed on page 5, lines 17-20, "Having found potential matches using a rapid comparison of the first groups, a detailed comparison of the corresponding second

groups establishes the required or inexact matches.” See also page 12, line 28, to page 13, line 18.

The other independent claims (44 and 54) have been amended to be consistent with amended claim 25.

The amendments are supported by the claims as originally filed and by the specification as a whole. Although the foregoing changes have substantially increased the word count of claim 25, the uncoiling of iterative loops inherent in the earlier version of the claim, as suggested during the interview, should not affect its scope. Accordingly, no new matter is believed to be introduced thereby.

Claim Rejection

Claim 25 is objected to for the presence of informalities. Claim 25 is amended herein. In light of the above, Applicant believes that the instant claim is free of informalities and requests that the objection to the claim be withdrawn.

Claim Rejection – 35 USC §101

Claim 55 has been rejected under 35 USC § 101 as allegedly directed to non-statutory subject matter. The Office Action alleges the “removable computer-readable storage medium” recited in claim 55 may take many forms, of which a transmission signal may be a nontangible form, which would be nonstatutory subject matter.

Applicant submits that the computer-readable storage medium recited in the claim is literally “removable”, hence would be understood to be a tangible, physical storage medium, “such as a CD ROM” (specification, page 9, line 32, to page 10, line 1) that can be inserted and removed by the user as desired. Such software “provided on removable media” is different from software that can be “loaded over a network connection” (page 10, line 1). A nontangible transmission signal, which is not insertable or “removable” as commonly understood, would not be encompassed by the scope of this claim, thus claim 55 does not recite nonstatutory subject matter. Accordingly, reconsideration and withdrawal of the rejection of claim 55 as amended is believed to be in order, and is requested.

Claim Rejections – 35 USC §103

Claims 25, 31-34, 36, 38-41, 43-50, 52-54, and 56 have been rejected under 35 USC §103(a) as allegedly unpatentable over Califano (US 5,577,249 B1) in view of Bjornson et al. (US 6,691,109 B2). As this rejection may pertain to the claims as amended, it is traversed.

Initially, and as discussed above, the claims have been amended to distinguish this combination, and by so doing, to highlight the features of the present method that are neither disclosed nor fairly suggested by the references of record.

As explained in the previous response and during the interview, all of the foregoing steps are performed in serial fashion, and this serial aspect of the present method and system is one of the distinguishing features of the invention that is nowhere found in either Califano or Bjornson et al., or in any of the references cited and applied herein.

As stated above, the present method proceeds in at least two phases, where step 4) is performed subsequently after the earlier steps, and this mode of operation confers clear advantages: the first groups of segments are compared before the second group is compared, as the results of that first comparison allow a more efficient second group comparison.

Accordingly, as Bjornson et al. describe a method of analysis of segments that proceeds in parallel, rather than in serial, and as there is no suggestion in Bjornson et al. of the present method, Bjornson et al. fail to cure the deficiencies of the primary reference to Califano, including those acknowledged by the examiner to exist, so that the combination of Califano and Bjornson et al. in rejection of the claims particularly as presently amended, is untenable. Therefore, withdrawal of this ground of rejection is believed to be in order, and is requested.

Claims 29, 30, and 37 have been rejected under 35 USC §103(a) as allegedly unpatentable over Califano (US 5,577,249 B1) in view of Bjornson et al. (US 6,691,109 B2) and further in view of Patzer (US 2004/0059721 A1). As this rejection may pertain to the claims as amended, it is traversed.

In short, Patzer fails to remedy the above-outlined defects of Califano and Bjornson et al. with respect to the instant claims. Therefore, withdrawal of this ground of rejection is believed to be in order, and is requested.

Claims 35 and 55 have been rejected under 35 USC §103(a) as allegedly unpatentable over Califano (US 5,577,249 B1) in view of Bjornson et al. (US 6,691,109 B2) and further in view of Walker et al. (US 6,633,817). As this rejection may pertain to the claims as amended, it is traversed.

Briefly, Walker et al. fail to remedy the above-outlined defects of Califano and Bjornson et al. with respect to the instant claims. Therefore, withdrawal of this ground of rejection is believed to be in order, and is requested.

Claims 42 and 51 have been rejected under 35 USC §103(a) as allegedly unpatentable over Califano (US 5,577,249 B1) in view of Bjornson et al. (US 6,691,109 B2) and further in view of Myers et al. (US 6,714,874). As this rejection may pertain to the claims as amended, it is traversed.

Myers et al. fail to remedy the defects of above-outlined Califano and Bjornson et al. with respect to the instant claims. Therefore, withdrawal of this ground of rejection is believed to be in order, and is requested.

Claim 57 has been rejected under 35 USC §103(a) as allegedly unpatentable over Califano (US 5,577,249 B1) in view of Bjornson et al. (US 6,691,109 B2) and further in view of Harris et al. (US 2002/0022243 A1). As this rejection may pertain to the claims as amended, it is traversed.

In short, Harris et al. fail to remedy the above-outlined defects of Califano and Bjornson et al. with respect to the instant claims. Therefore, withdrawal of this ground of rejection is believed to be in order, and is requested.

Conclusion

To summarize, therefore, the features of the present method are believed to be more clearly recited in the claims as amended and presented for consideration, and are likewise believed to clearly distinguish the references applied in rejection. Likewise, applicant believes that the amendment of the claims overcomes any informalities indicated by the examiner, and clarifies the features of the invention and renders the claims allowable. Applicant submits that patentable subject matter is clearly defined and that all grounds of rejection have been overcome.

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In view of the above and foregoing, reconsideration and withdrawal of the outstanding grounds of objection and rejection and early allowance of the claims as amended is believed to be in order and is courteously solicited.

Respectfully submitted,

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ENCLOSURES: Request for Continued Examination
 Request for Five (5) Month Extension of Time